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10/017,472	12/07/2001	Sunil Chada	INGN:097US	5209

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EXAMINER	
LI, QIAN JANICE	

ART UNIT	PAPER NUMBER
1633	

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/017,472	CHADA ET AL.	
	Examiner	Art Unit	
	Q. Janice Li, M.D.	1633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 January 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25,32-43 and 68-77* is/are pending in the application.

4a) Of the above claim(s) *5 and 6* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,7-25,32-43 and 68-77* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 December 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/1/04,2/11,3/3/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

The Brief on Appeal filed on 1/3/05 has been entered.

On a separate matter, in view of the decision on the petition under 37 CFR 1.144 concerning Requirement for Restriction filed 12/28/2004, PROSECUTION IS HEREBY REOPENED. Claims 68-74 have been rejoined. As a result, previous rejections have been modified to include these claims, and appear below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claims 1, 9, 15, 16, 36, 37 have been amended. Claims 1-25, 32-43, and 68-77 are pending.

Please note that the claims under examination are subject to an election of species requirement, see the office action mailed on 2/24/03. In the response received from the applicant dated 3/17/03 and 7/7/03, the applicant elected without traverse of group I, drawn to a method of using a mda-7 nucleic acid(s), and the species drawn to treating an angiogenesis-dependent cancer, using the fragment 182-206 of SEQ ID No:

2, and adenoviral vector for examination on the merits. Claim 4 is limited to the elected species (angiogenesis-dependent cancer) concerning the genus of angiogenesis related diseases. In the process of the prosecution, particularly in view of the decision on petition, the full length and various fragments of the mda-7 have been included in the examination (claims 25, 32, 68-74). Claims 1-3, 7-24, 33-43, 75-77, however, are still generic and have not been amended to reflect the elected subject matter. All pending claims, including generic claims 1-3, 7-24, 33-43, 75-77, have been examined **only** to the extent that they read on the elected subject matter, particularly for the purpose of applying prior art.

Unless otherwise indicated, previous rejections that have been rendered moot in view of the amendment to pending claims will not be reiterated. The arguments in the appeal brief would be addressed to the extent that they apply to current rejection.

Claims 1-4, 7-25, 32-43, and 68-77 are under current examination.

Information Disclosure Statement

The extensive listing of references in the specification (pages 107-120) is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been submitted in a form PTO-1449 or have been cited by the examiner on form PTO-892, they have not been considered.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-4, 7-25, 32-43, 75-77 stand rejected and the rejection now applies to claims 68-74 under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for intratumoral injection of a nucleic acid expressing full length MDA-7 polypeptide or secreted form of MDA-7 (lacking a secretion signal, i.e. the fragment 49-206 of SEQ ID No: 2) for treating angiogenesis-dependent cancer, does not reasonably provide enablement for distal or systemic administration of an adenoviral vector expressing any *fragment* of MDA-7 polypeptides for treating angiogenesis-dependent tumor, for reasons of record.

The brief on Appeal presented similar arguments as in the response to the first Office action, which have been addressed in the previous Office action mailed 6/15/2004 (pages 5-15 of the final Office action), the reasoning applies to the rejoined claims 68-74, drawn to various fragments of MDA-7, and thus the Office response in the final Office action will not be reiterated.

Additionally, it is noted, a skilled artisan and patentee in the field, *Paul Fisher* (US 6,355,622) teach, "THE MECHANISM BY WHICH MDA-7 ELICITS ITS GROWTH SUPPRESSIVE EFFECTS ON HUMAN CANCER CELLS IS NOT PRESENTLY KNOWN. THE STRUCTURE OF MDA-7 DOES NOT PROVIDE INSIGHT INTO POTENTAL FUNCTION, SINCE NO SEQUENCE MOTIFS ARE PRESENT THAT WOULD SUGGEST A POTENTIAL MODE OF ACTION" (column 10, lines 50-54). Clearly, the

structural function-relationship between the fragments of mda-7, and their function is not well known in the art, hence it is applicant's duty to provide an enabling disclosure for the full scope of the claimed invention. However, other than prophetical contemplation, the specification fails to disclose any functional fragment of the mda-7 as filed, and thus fails to provide an enabling disclosure.

As to the routes of administration, although it was known in the art, intravenous or other parental administration was an option (e.g. *Roth et al*, US 6,069,134, column 30, lines 40-64), such means would deliver a DNA to any cell or tissue, not tumor specific, and difficult to bring sufficiently high dose to the site of the target to suppress tumor without toxic effects to other tissue. The instant specification does not teach otherwise, and thus fails to provide an enabling disclosure.

Accordingly, for reasons of record and set forth *supra*, the rejection stands.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 75 and 76 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 75 and 76 recite the limitation "viral particles". There is insufficient antecedent basis for this limitation in the claim.

Applicants argue that the skilled artisan would understand that the number of viral particles recited in claims 75 and 76 refer to the amount of viral vector [of claim 8] that is administered to a patient.

In response, it is well known in the art that viral vector and viral particle are structurally different substances (see e.g. google definition). One cannot just assume they are the same in patent claims. Accordingly, for reasons of record and set forth above, the rejection stands.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 7, 8, 10-15, 24, 25, 32-36, 42, 43, 68-74, and 77 stand or newly rejected under 35 U.S.C. 102(e) as being anticipated by *Fisher* (US 6,355,622), and as evidenced by *Folkman et al* (Nature 1989;339:58-61; and J Biol Chem 1992;267:10931-4), for reasons of record and following.

Fisher teaches a method of inhibiting cancer in a subject comprising intratumoral administering, to nude mice bearing human cervical carcinoma cells, replication deficient adenoviral vector encoding the full length mda-7 protein (e.g. column 6, lines

27-65), wherein the full length mda-7 is a 206 polypeptide comprises various fragments as recited in claims 32, 68-74; wherein the administration regimen was three times a week for 4 weeks. *Fisher* reports the well-established tumors were growth inhibited in the mda-7 treated mice compared to the control group (column 14, lines 35-67), wherein the expression of mda-7 was driven by a CMV promoter (column 13, line 56). *Fisher* also teaches that the nucleic acid could be embedded in liposomes and introduced into cells (column 3, line 67, lipid composition). *Fisher* teaches that ectopic expression of mda-7 inhibits the growth of tumor cells and may provide therapeutic benefit for the treatment of human cancer (column 14, lines 62-65).

It is noted that *Fisher* does not literaterally teach that tumor is an angiogenesis-related disease. However, it was well known in the art that tumor belongs to angiogenesis-related disease, and angiogenesis accompanies tumor growth and metastasis as evidenced by *Folkman et al*, thus the teaching of *Fisher* meets every claim limitation for the elected species.

Therefore, *Fisher* anticipates the instant claims.

Response to Arguments

In the Appeal Brief, Appellant argued that *Fisher* does not even mention angiogenesis or inhibition of angiogenesis, accordingly, it does not anticipate the claimed invention.

The argument has been fully considered but found not persuasive. Two *Folkman* references have been included as evidence to support the Office position, to place on

record a well-known fact. The Appellant, as a skilled artisan, should have been familiar with and recognize such fact. The Appellant is reminded that the ***elected species*** for a disease is drawn to an angiogenesis-dependent **cancer**. This is reflected in the claims, which recite a method of inhibiting angiogenesis in a human subject in need of such treatment (claim 1), wherein said patient exhibits an angiogenesis-related disease (claim 2), wherein said disease is further defined as angiogenesis-dependent cancer (claim 3), which encompasses any solid tumor, leukemia, or any tumor metastasis (claim 4). Clearly, the teaching of *Fisher* meets claim limitation, i.e. a method of suppressing solid tumor comprising administering to a subject in need a nucleic acid encoding MDA-7 (e.g. column 5, lines 20-25 and 32-43). So long as *Fisher* teaches the narrowest claim 4, he anticipates instantly claimed invention because it is well established that **a species of a claimed invention renders the genus obvious**. In re Schaumann , 572 F.2d 312, 197 USPQ 5 (CCPA 1978).

Moreover, the well-known association of tumor growth and angiogenesis is fully acknowledged by the Appellant. For example, the specification (page 110) cites *Folkman et al* (1990), who teaches the evidence that tumors are angiogenesis dependent. The specification also teaches in the background section, "*aberrant angiogenesis is associated with a number of disorders, including, tumor metastasis. In fact, it is commonly recognized that tumor growth is dependent upon angiogenic processes (Folkman, 1989). Thus, the ability to increase or decrease angiogenesis has significant implications for clinical situations, such as wound healing (e.g., graft survival)*

or cancer therapy, respectively" (Specification, paragraph 0008). Thus, it is not even necessary for *Fisher* to explicitly teach tumor is an angiogenesis-related disease.

The Appellant then argued that *Fisher* does not show tumors treated with Ad-mda7 had fewer blood vessels than untreated tumors, it was instant specification that taught such.

The argument has been fully considered but found not persuasive for reasons of record and following:

a. Long before the instant priority date, the crucial relationship between angiogenesis and tumorogenesis had been under intense investigation, the skilled artisan acknowledges that cancers are angiogenesis driven and dependent. For example, in addition to the evidence cited in the base of this rejection, a book chapter teaches, "JUDAH FOLKMAN (1974) ... HAS SUGGESTED THAT CELLS CAPABLE OF FORMING TUMORS DEVELOP AT A CERTAIN FREQUENCY BUT THAT A LARGE MAJORITY ARE NEVER ABLE TO FORM OBSERVABLE TUMORS. THE REASON IS THAT SOLID TUMOR, LIKE ANY OTHER RAPIDLY DIVIDING TISSUE, NEEDS OXYGEN AND NUTRIENTS TO SURVIVE. WITHOUT A BLOOD SUPPLY, POTENTIAL TUMORS EITHER DIE OR REMAIN DORMANT. SUCH "MICROTUMORS" REMAIN AS A STABLE CELL POPULATION WHEREIN DYING CELLS ARE REPLACED BY NEW CELLS. THE CRITICAL POINT AT WHICH THIS NODE OF TUMOROUS CELLS BECOMES A RAPIDLY GROWING TUMOR OCCURS WHEN THE POCKET OF CELLS BECOMES VASCULARIZED. THE MICROTUMOR CAN EXPAND TO 16,000 TIMES ITS ORIGINAL VOLUME IN 2 WEEKS AFTER VASCULARIZATION. WITHOUT THE BLOOD SUPPLY, NO GROWTH IS SEEN (FOLKMAN, 1974; AUSPRUNK AND FOLKMAN, 1977)" (emphasis added). Apparently, long before the instant filing date, it was well known in the art angiogenesis is necessary phenomenon associated with tumor growth or suppression. *Hahnfeldt and Folkman*

(Cancer Res 1999 Oct 1;59(19):4770-5) reported a clear association of tumor size and angiogenesis, pointed out the ultimate limitation to tumor size is under angiogenic control, and posed a quantitative theory for tumor growth under angiogenic stimulator/inhibitor control that is both explanatory and clinically implementable for treating tumor; and concluded "THE COMPETITIVE INFLUENCES OF ANGIOGENICALLY DRIVEN GROWTH AND INHIBITION UNDERLYING THIS FRAMEWORK MAY HAVE RAMIFICATIONS FOR TISSUE SIZE REGULATION IN GENERAL". Hence, since angiogenesis is defined as a process of forming new blood vessels, and is an important part of the cancer progression process, since the method taught by *Fisher* suppressed tumor growth *in vivo,* and blocked cancer progression process (e.g. figure 5), a smaller tumor would have less blood vessels, and the method would intrinsically suppresses angiogenesis-dependent tumor and suppresses tumor angiogenesis. Accordingly, *Fisher* anticipates instant claims.

b. The invention as claimed fully encompasses the method taught by *Fisher* in the aspect of the elected species: anti-cancer effect of mda-7, and in the aspect of method steps. It is possible that *Fisher* was not fully aware that the MDA-7 anti-tumor effect was, at least in part, through suppressing angiogenesis; and it is possible that the complete mechanism of tumor suppressive effect of MDA7 was not known at the time. Nonetheless, it was known that adenovirus expressing mda-7 is capable of inhibiting tumor growth whatever the mechanism might be. The court has decided it is a general rule that merely discovering and claiming a new benefit to an old process cannot render the process again patentable. In re Woodruff, 919 F. 2d 1575, 1577-78, 16 USPQ2d 1934, 1936-37 (Fed.Cir. 1990); In re Swinehart, 439 F.2d 210, 213, 169 USPQ 226, 229

(CCPA 1971); and Ex Parte Novitski, 26 USPQ2d 1389, 1391 (Bd. Pat. App. & Int. 1993). Accordingly, the rejection stands.

c. The specification fails to teach the tumor treated by *Fisher* is not angiogensis-dependent, and thus, as long as Fisher's method suppressed tumor growth, it intrinsically also suppressed tumor angiogenesis. The specification fails to teach suppressing tumor growth does not necessarily suppress tumor angiogenesis. The specification fails to teach that tumor growth is independent of angiogenesis. Accordingly, the rejection stands.

Claims 1-4, 7-25, 35-43, 68-77 stand or newly provisionally rejected and the rejection under 35 U.S.C. 102(e) as being anticipated by copending Application No. 09/615,154 which has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the copending application, it would constitute prior art under 35 U.S.C. 102(e), if published under 35 U.S.C. 122(b) or patented. This provisional rejection under 35 U.S.C. 102(e) is based upon a presumption of future publication or patenting of the copending application.

Applicants argue that claims of the copending application are drawn to a method of treating a tumor in a patient comprising administering a viral vector expressing an mda-7 polypeptide or fragment there of, whereas instant application is drawn to inhibiting angiogenesis.

In response, Applicant is reminded that the elected invention under current examination is drawn to treating angiogenesis-related tumor in a patient, thus, instant

claims are obvious variant of the claims of the co-pending application. Accordingly, claims of instant application and copending application are co-extensive.

Claims 1-4, 7-25, 35-43, 68-77 stand or newly rejected under 35 U.S.C. 102(f) because the applicant did not invent the claimed subject matter. U.S. patent application 09/615,154 has a different inventive entity, yet the disclosure anticipates the instantly claimed invention, for reasons of record and *supra*.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 7-9, 16-23, 36-41, 75, 76 stand and newly rejected under 35 U.S.C. 103(a) as being unpatentable over *Roth et al* (US 6,069,134), in view of *Fisher* (US 6,355,622), for reasons of record and following.

It is noted *Roth et al* contemplated that local administration was preferred method, but intravenous infusion from a site distal of tumor was contemplated (column 30, lines 40-64), and thus claims 16-19 have now been included in the rejection.

In the Brief on Appeal, the appellant first argued that claim limitations are not taught by the combination of references because neither Roth nor Fisher mentions angiogenesis.

In response, as discussed above, claims are clearly drawn to a method of inhibiting angiogenesis in a human subject in need of such treatment, wherein said patient exhibits an angiogenesis-related disease (claim 2), wherein said disease is further defined as angiogenesis-dependent cancer (claim 3), which encompasses any solid tumor, leukemia, or any tumor metastasis (claim 4). Clearly, inhibiting angiogenesis encompassing inhibiting tumor, a species of a genus of diseases, which has been clearly taught by *Fisher et al* (e.g. column 5, lines 32-43) in view of *Roth et al* (e.g. abstract, column 3, lines 20-48). This is because it is well established that a species of a claimed invention renders the genus obvious. In re Schaumann, 572 F.2d 312, 197 USPQ 5 (CCPA 1978).

Applicants then argue that there is no reasonable expectation of success as neither reference discusses angiogenesis, the skilled artisan would not have any reason to believe that combining the teachings of the references would provide a way to inhibit angiogenesis in a patient.

In response, the instant claims clearly indicated that the recited angiogenesis encompasses cancer angiogenesis, which is the elected species for the type of diseases, and it is well known in the art that tumors are angiogenesis dependent. Since both references teach the method suppressed tumor growth, one would have had a reasonable expectation of success combining the two methods for treating cancer, an angiogenesis-associated disease. Accordingly, since *Roth et al* taught the success in combining conventional therapy with gene therapy in treating tumor, and since *Fisher et al* taught the success of inhibiting tumor with a nucleic acid expressing MDA-7, a skilled

artisan would have had a reasonable success in inhibiting the tumor, an angiogenesis associated disease, when combined the gene therapy with the conventional cancer therapy. Accordingly, the rejection stands.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4, 7-25, 32, 35-43, 68-74, 77 stand or newly provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 91-116,125-154, 159-174 of copending U.S. Patent Application No. 09/615,154, for reasons of record and set forth *supra*.

Applicant presented similar argument as in the provisional rejection under § 102, which has been addressed and will not be reiterated.

Conclusion

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Q. Janice Li** whose telephone number is 571-272-0730. The examiner can normally be reached on 9:30 am - 7 p.m., Monday through Friday, except every other Wednesday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Dave T. Nguyen** can be reached on 571-272-0731. The **fax** numbers for the organization where this application or proceeding is assigned are **571-273-8300**.

Any inquiry of formal matters can be directed to the patent analyst, **William Phillips**, whose telephone number is (571) 272-0548.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is **(866) 217-9197**. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system

provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at **800-786-9199**.

Q. JANICE LI, M.D.
PRIMARY EXAMINER

Q. Janice Li, M.D.
Primary Examiner
Art Unit 1633

QJL
January 9, 2006